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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,923	08/31/2001	Roy Chrisop	SLA 1050	2251

55286 7590 01/12/2006

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EXAMINER	
LAM, ANDREW H	
ART UNIT	**PAPER NUMBER**
2624	

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/944,923	CHRISOP ET AL.	
	Examiner	Art Unit	
	Andrew H. Lam	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 October 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-14 and 17-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-14 and 17-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

DOUGLAS Q. TRAN
PRIMARY EXAMINER
Tranlong

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

- This action is responsive to the following communication: an Amendment filed on 10/7/05.
- Claims 1, 4-14 and 17-25 are pending in the present application. Claims 2-3 and 15-16 are canceled. Claims 1, 4-5, 10-14, 17-18 and 22-25 are amended. New claims 31 and 32 are added.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4-6, 8, 9, 12, 14, 17, 18, 20, 21, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over AuClair in view of Takahashi (JP 07273957).

Regarding claim 1, AuClair discloses in a multifunction peripheral (MFP) device with a plurality of components (figs. 1-5, electrophotographic printing machine is an MFP since it can print and copy), a method for adaptively allocating random access memory (RAM), (col. 8, lines 41-45) the method comprising: supplying an interface (fig. 5, user interface UI 14); and in response to interface prompts, selecting the allocation of RAM for MFP functions selected from the group consisting of a document format (fig. 1, system 100, block 122 shows the determination of the number of reused fonts in the

font cache associated with the printer, i.e., fonts type are associated with document type).

AuClair does not disclose expressly allocation of RAM based on MFP component, where the component is selected from the group consisting of a fax, scanner, printer and copier.

Takahashi discloses allocation of RAM based on MFP component (fig. 2, external view of image formation storage, detail description of the invention, paragraphs 97-107, for example at start up 8MB is assign to each function, i.e., electronic sort (copy) or fax however when memory run short allocation or adjustment can be made to the copy to make it 12 MB and fax 4 MB, see fig. 14), where the component is selected from the group consisting of a fax, scanner, printer and copier.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the invention of Auclair in view of Takahashi for the following reason: by being able to allocate memory between MFP components such as a copier and a fax machine it allows the memory to be used more effectively since the memory can be shared among components (detail description, paragraph 7).

Regarding claim 4, the combination (AuClair and Takahashi) discloses the method of claim 1, wherein selecting the allocation of Ram for the document format includes selecting the allocation of Ram for a document format selected from the group including post scripts (PS) documents, printer control language (PCL) documents, tagged image file format (TIFF) documents, and portable document format (PDF) documents (fig.1 system 100, block 122 shows the determination of the number of

reused fonts in the font cache associated with the printer, i.e., fonts type are associated with document type. Typically, in PostScript and/or PCL emulation language printers, fonts are communicated to the printer according to the outlined, definitions of those fonts (col. 7, lines 34-39). AuClair further states that the amount of memory allocated to the font cache can therefore have an important effect on the overall efficiency of the printer. As such, the font cache management enabled by the system 100 of the present invention can have an important effect on the efficiency of the printer (col.7 lines 48-58)).

Regarding claim 5, the combination discloses the method of claim 1 wherein supplying an interface includes supplying a graphical user interface (GUI) to present RAM allocation options (inherently touch screen allows the user to response to interface prompts and that it is a GUI); and, wherein selecting the allocation of RAM for MFP functions in response to interface prompts includes allocating portions of RAM in response to GUI prompts (AuClair, col. 3, lines 39-45) (Takahashi, fig. 14).

Regarding claim 6, the combination discloses the method of claim 5 in which the MFP has a front panel display; and, wherein supplying an interface includes supplying a GUI on the MFP front panel to present RAM allocation options (col. 3, lines 38-39).

Regarding claim 8, the combination discloses the method of claim 5 further comprising: establishing predetermined ranges to limit each RAM allocation; and, wherein selecting the allocation of RAM for MFP functions includes allocating portions of RAM to respective MFP functions within the range of established allocation limits (Takahashi, detail description, paragraphs 110-117).

Regarding claim 9, the combination discloses the method of claim 5 wherein supplying a GUI to present RAM allocation options includes presenting a memory configuration table cross-referencing MFP functions to their respective RAM memory allocations (Takahashi, detail description, paragraph 31, managed table 33f).

Regarding claim 12, the combination discloses the method of claim 1 with continued reference to fig.3, a user may upload diskette 330 into a drive 340 included with or connected to IPS 12. Processor 345 of IPS 12 may then download to or upload for a printer usage determinations and buffer size, duplicate buffer and recovered memory reassignment change parameter profiles and/or implementation schemes (col. 9, lines 44-51).

Regarding claim 13, the combination discloses the method of claim 1 wherein a display list data storage location having a predetermined size (col.10, line 30-31).

Regarding claim 14, AuClair discloses in a multifunction peripheral (MFP) device with a plurality of components (figs. 1-5, electrophotographic printing machine is an MFP since it can print and copy), a system for adaptively allocating random access memory (RAM), (col. 8, lines 41-45) the method comprising: supplying an interface (fig. 5, user interface UI 14); and in response to interface prompts, selecting the allocation of RAM for MFP functions selected from the group consisting of a document format (fig. 1, system 100, block 122 shows the determination of the number of reused fonts in the font cache associated with the printer, i.e., fonts type are associated with document type).

AuClair does not disclose expressly allocation of RAM based on MFP component, where the component is selected from the group consisting of a fax, scanner, printer and copier.

Takahashi discloses allocation of RAM based on MFP component (fig. 2, external view of image formation storage, detail description of the invention, paragraphs 97-107, for example at start up 8MB is assign to each function, i.e., electronic sort (copy) or fax however when memory run short allocation or adjustment can be made to the copy to make it 12 MB and fax 4 MB, see fig. 14), where the component is selected from the group consisting of a fax, scanner, printer and copier.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the invention of Auclair in view of Takahashi for the following reason: by being able to allocate memory between MFP components such as a copier and a fax machine it allows the memory to be used more effectively since the memory can be shared among components (detail description, paragraph 7).

Regarding claim 17, the combination discloses the system of claim 14, wherein the interface supplies prompts for selecting the allocation of RAM for a document format selected from the group including post script (PS) documents, printer control language (PCL) documents, tagged image file format (TIFF) documents, and portable document format (PDF) documents (fig.1 system 100, block 122 shows the determination of the number of reused fonts in the font cache associated with the printer, i.e., fonts type are associated with document type. Typically, in PostScript and/or PCL emulation language printers, fonts are communicated to the printer according to the outlined, definitions of

those fonts (col. 7, lines 34-39). AuClair further states that the amount of memory allocated to the font cache can therefore have an important effect on the overall efficiency of the printer. As such, the font cache management enabled by the system 100 of the present invention can have an important effect on the efficiency of the printer (col.7 lines 48-58)).

Regarding claim 18, the combination discloses the system of claim 14 further comprising: an MFP front panel display; wherein the interface is a graphical user interface (GUI) to present RAM allocation options on the display (inherently touch screen allows the user to response to interface prompts and that it is a GUI); and, wherein the allocator allocates RAM for MFP functions in response to GUI prompts on the display (AuClair, col. 3, lines 39-45) (Takahashi, fig. 14).

Regarding claim 20, the combination discloses the system of claim 17 wherein the allocator operates within predetermined ranges to limit each RAM allocation (Takahashi, detail description, paragraphs 110-117).

Regarding claim 21, the combination discloses the system of claim 17 wherein the interface presents a memory configuration table GUI cross-referencing MFP functions to their respective RAM allocations; and, wherein the allocator allocates RAM for MFP functions in response to the memory configuration table GUI (Takahashi, detail description, paragraph 31, managed table 33f).

Regarding claim 24, the combination discloses the system of claim 14 with continued reference to fig.3, a user may upload diskette 330 into a drive 340 included with or connected to IPS 12. Processor 345 of IPS 12 may then download to or upload

for a printer usage determinations and buffer size, duplicate buffer and recovered memory reassignment change parameter profiles and/or implementation schemes (col. 9, lines 44-51).

Regarding claim 25, the combination discloses the system of claim 14 wherein a display list data storage location having a predetermined size (col.10, line 30-31).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over AuClair and Takahashi in view of Venkatraman et al (U.S. 5956487).

The combination of (AuClair and Takahashi) discloses that a network of one or more personal computers (PC) is shown interfacing/in communication with IPS (col.3, lines 29-30).

The combination does not disclose expressly an embedded web server in the electrophotographic printing machine.

Venkatraman discloses that when Web access functionality is embedded in a device it provides and enables low cost widely accessible and enhanced user interface functions for the device (col. 2, lines 13-19).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the combination as per teaching of Venkatrama because of the following reason: it is low cost, and would enhance user interface functions and device (col. 2, line 14) management which is a stated objective of AuClair (Col. 2, lines 33-41).

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over AuClair and Takahashi in view of Mahmound et al (U.S. 6785746).

The combination (AuClair and Takahashi) discloses that a user can allocate (fig.4 controller) memory for the electrophotographic printing machine.

The combination does not disclose expressly that a user must reboot the system in order for memory to assign to the proper components.

Mahmound discloses that the computer reboots because without rebooting, the system is not able to utilize the new information inputted into the EEPROM memory (col.9, lines 20-24).

At the time of the invention, it would have been obvious to one of ordinary skill in to modify the combination as per teaching of Mahmound because of the following reason: by rebooting the MFP device of AuClair the new distribution of the RAM allocation which is inputted by the operator is the new information inputted into the RAM memory would take place, thus causing the system configuration demanded by AuClair.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over AuClair and Takahashi in view of Bitar et al (U.S. 6353844).

The combination (AuClair and Takahashi) discloses a system may base historical memory/printer usage data on a sample of the most recent uses of the system.

The combination does not disclose expressly that a user can prioritize the MFP function in event of memory contention.

Bitar discloses that resources such as CPUs and memory can be allocated for each batch jobs (col. 11, line 32), wherein batch jobs within the critical batch job class are assigned higher priority than batch jobs within the non-critical batch job class (col. 13, lines 10-24). Critical job can borrow resources when needed to complete the job on

time. In this way a system that employ this method can improves the response time and can complete the job faster, because of the more efficient use to the resources (col. 11, lines 45-48).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the combination as per teaching of Bitar because by allocating additional resources such as CPUs and memory to higher priority function would improve response time of the printer. Thus, achieving the objective of AuClair, which is to optimize printing efficiency.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over AuClair and Takahashi in view of Venkatraman et al (U.S. 5956487).

The combination (AuClair and Takahashi) discloses disclose that a network of one or more personal computers (PC) is shown interfacing/in communication with IPS (col.3, lines 29-30).

The combiantion does not disclose expressly an embedded web server in the electrophotographic printing machine.

Venkatraman discloses that when Web access functionality is embedded in a device it provides and enables low cost widely accessible and enhanced user interface functions for the device (col. 2, lines 13-19).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the combination as per teaching of Venkatrama because of the following reason: it is low cost, and would enhance user interface functions and

device (col. 2, line 14) management which is a stated objective of AuClair (col. 2, lines 33-41).

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over AuClair and Takahashi in view of Mahmound et al (U.S. 6785746).

The combination (AuClair and Takahashi) discloses that a user can allocate (fig.4 controller) memory for the electrophotographic printing machine.

The combination does not disclose expressly that a user must reboot the system in order for memory to assign to the proper components.

Mahmound discloses that the computer reboots because without rebooting, the system is not able to utilize the new information inputted into the EEPROM memory (col.9, lines 20-24).

At the time of the invention, it would have been obvious to one of ordinary skill in to modify the combination as per teaching of Mahmound to reboot the MFP device so that the distribution of the RAM allocation is implemented as per the information inputted into the RAM memory by the user.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over AuClair and Takahashi in view of Bitar et al (U.S. 6353844).

The combination (AuClair and Takahashi) discloses a system may base historical memory/printer usage data on a sample of the most recent uses of the system.

The combination does not disclose expressly that a user can prioritize the MFP function in event of memory contention.

Bitar discloses that resources such as CPUs and memory can be allocated for each batch jobs (col. 11, line 32), wherein batch jobs within the critical batch job class are assigned higher priority than batch jobs within the non-critical batch job class (col. 13, lines 10-24). Critical job can borrow resources when needed to complete the job on time. In this way a system that employ this method can improves the response time and can complete the job faster, because of the more efficient use to the resources (col. 11, lines 45-48).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the combination as per teaching of Bitar because by allocating additional resources such as CPUs and memory to higher priority function would improve response time of the printer. Thus, achieving the objective of AuClair, which is to optimize printing efficiency.

Response to Arguments

Applicant's arguments, see pages 8-13, filed 10/07/05, with respect to the rejection(s)of claim(s) 1, 4-6, 8, 9, 12, 14, 17, 18, 20, 21, 24 and 25 under 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art references due to newly amended limitations as cited in claims 1, 4-6, 8, 9, 12, 14, 17, 18, 20, 21, 24 and 25

Regarding claims 1, 4-6, 8, 9, 12, 14, 17, 18, 20, 21, 24 and 25, the applicant argued the cited prior art (U.S. Patent No. 5,659,670 to AuClair) fail to teach and or/

suggest that "MFP RAM can be allocated on the basis of MFP component such as fax, scanner, printer and copier".

In response to applicant's argument Takahashi discloses allocation of RAM based on MFP component (fig. 2, external view of image formation storage, detail description of the invention, paragraphs 97-107, for example at start up 8MB is assign to each function, i.e., electronic sort (copy) or fax however when memory run short allocation or adjustment can be made to the copy to make it 12 MB and fax 4 MB, see fig. 14), where the component is selected from the group consisting of a fax, scanner, printer and copier.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the invention of Auclair in view of Takahashi for the following reason: by being able to allocate memory between MFP components such as a copier and a fax machine it allows the memory to be used more effectively since the memory can be shared among components (detail description, paragraph 7).

In respond to claim 7, 10, 11, 19, 22 and 23 which depends from claims 1 and 14, they inherit the deficiency of the claims 1 and 14 discussed above.

Contact Information

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew H. Lam whose telephone number is (571) 272-8569. The examiner can normally be reached on M-F (9:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DOUGLAS Q. TRAN
PRIMARY EXAMINER